Aero Design
Parts Distribution Sheet

WO# 2014-66

From PO or WO #	Quantity	Description	Part Number	For WO #
14060	90'	4130 Tubing	1/2" x 1/2"	
2015-50	40	Basket Lugs	69823-02	

CARGO BASKET HOOP FABRICATION - 94522

General

These instructions apply to cargo basket aft attachment hoop 69822-01. Refer to the following drawings, at the current revision, for dimensions and details:

94522, Revision 0 – Aft Attachment Hoop

Notes

1. Always bend 1 hoop start to finish to ensure stops and stock length are correct.
2. Always pull with consistent speed through the bend, do not stop during the pull, and do not over-pull once the stop is reached.

Work Order: 2014-66

Date Open: 02-Sept-14

Complete
(initial or SCA #)

1. Aft Attachment Hoop Fabrication – 94522-01
 a. Cut ½" x 0.035 material to ??", square ends.
 b. Record material PO on attached material list.
 c. De-burr cut ends using a sanding disc on a die-grinder or disc sander.
 d. Remove writing on tubes with acetone and scotch bright.
 e. On the hoop bending fixture, set the following stops:
 i. Upper tube stop: ?"
 ii. Lower bend stop: 12mm
 f. Slide stock tube through bending die up to upper stop. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains tight to upper stop.
 g. Slide shim all the way forward on bender to secure tube in die
 h. Pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
 i. Check tube bend for square using a hoop jig or carpenters square. Adjust stops if required.
 j. Using the welding table bending fixture, mark tube at (??) and (??)
 k. Bend lower joggle to ?? degrees in both directions at marks
 l. On the hoop bending fixture, set the following stops:
 i. Upper tube stop: 19?"
 ii. Lower bend stop: 12mm
 m. Slide stock tube through bending die up to upper stop. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains tight to upper stop.
 n. Slide shim all the way forward on bender to secure tube in die
 o. Pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
 p. Check tube bend for square using a hoop jig or carpenters square. Adjust stops if required.
 q. Using the welding table bending fixture, mark tube at (??) and (??)
 r. Bend lower joggle to ?? degrees in both directions at marks

s. Check for:
 i. hoop height: 16.75" (Outside to outside)
 ii. hoop width just above bends: 25.25" (outside to outside)
 iii. joggle height 1.75"
 iv. adjust upper stop for height if required
 v. adjust stock length for width if required
 vi. twist – usually due to pulling bending arm up or down through bend

t. Drill #30 vent holes in bottom centre of hoop in fore/aft direction. De-burr with scotch-brite disc on die-grinder.

2. Aft Attachment Hoop Slots – 94522-01 AK
 a. Setup manual milling machine with standard steel vise jaw, with a backup bar to prevent the hoop from deflecting while cutting. Set XY 0 on far, right edge of jaw (end of hoop). Shift X along hoop 2.0" and set X 0.
 b. Using 5/8" (0.625) end mill, mill into side of tube in accordance with drawing. Apply a few drops of Rapid-Tap cutting oil to each location before milling.
 c. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
 d. Tag in process hoop(s) and place into stock.

3. Aft Attachment Hoop – Welding – 94522-01 AD-05
 a. Attach two 69823-02 lugs to 11" spacing jig using 3/8-24 bolt. Align lugs to slots in hoop prepared in step 2. above. Centre bolts on hoop.
 b. TIG weld lugs into hoop. Weld all around both lugs.
 c. Record lug and welding rod PO/WO on attached material list.
 d. Tag in process hoop(s) and place into stock.

4. Aft Attachment Hoop – Finish – 94522-01 AK
 a. Run 3/8-24 tap through welded lugs.
 b. Inspect hoop for conformity to drawing.
 c. Tag complete and inspected hoop(s) and place into stock.

CARGO BASKET HOOP FABRICATION – 94521

General

These instructions apply to cargo basket forward attachment hoop 69821-01. Refer to the following drawings, at the current revision, for dimensions and details:

94520, Revision 0 – Basket Component - Hoop
94521, Revision 0 – Forward Attachment Hoop

Work Order: 2014-66 **Complete** (initial or SCA #)

Date Open: 08-Sept-14

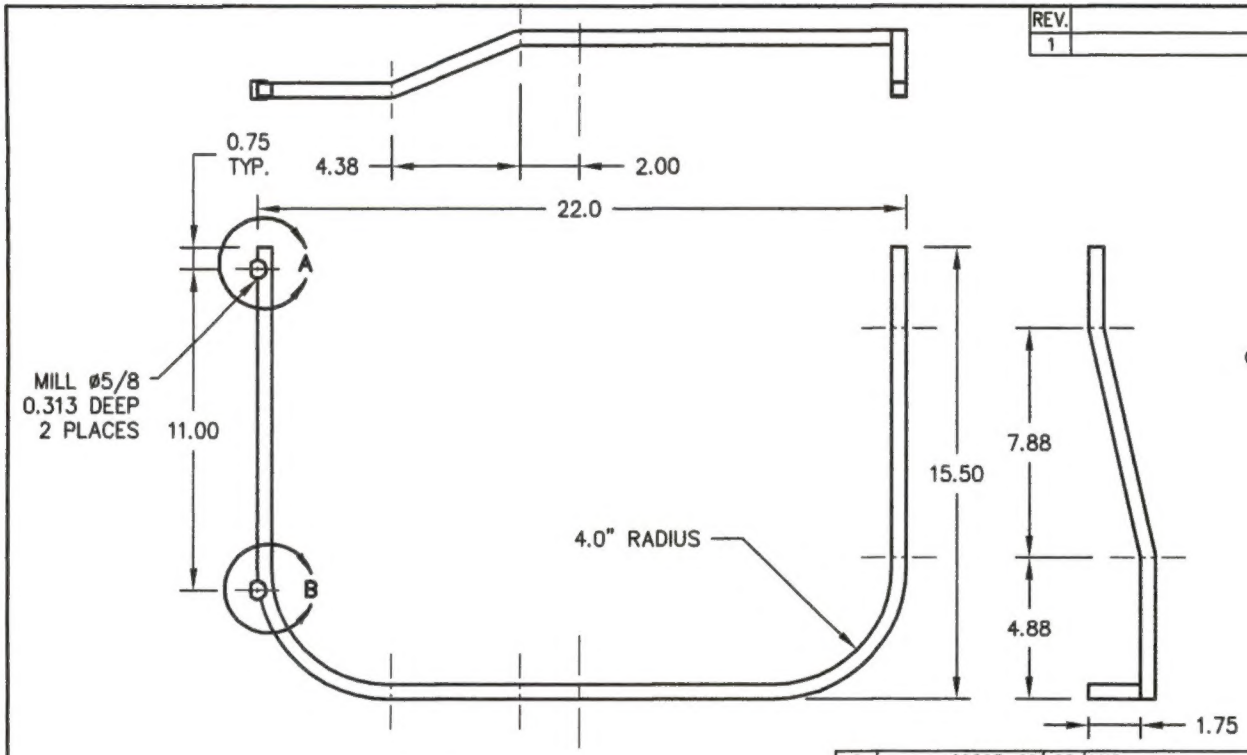
1. Forward Attachment Hoop – Preparation – 94521-01 AK
 a. Start with 94520-01 hoop as stock.
 b. Setup manual milling machine with standard steel vise jaw, with a backup bar to prevent the hoop from deflecting while cutting. Set XY 0 on far, right edge of hoop (end of hoop). Shift X along hoop 2.0" and set X 0.
 c. Using 5/8" (0.625) end mill, mill into side of tube in accordance with drawing. Apply a few drops of Rapid-Tap cutting oil to each location before milling.
 d. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
 e. Tag in process hoop(s) and place into stock.

2. Forward Attachment Hoop – Welding – 94521-01 AD-05
 a. Attach two 69823-02 lugs to 11" spacing jig using 3/8-24 bolt. Align lugs to slots in hoop prepared in step 1. above. Centre bolts on hoop.
 b. TIG weld lugs into hoop. Weld all around both lugs.
 c. Record lug and welding rod PO/WO on attached material list.
 d. Tag in process hoop(s) and place into stock.

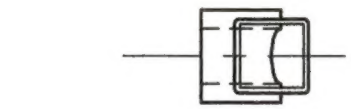
3. Forward Attachment Hoop – Finish – 94521-01 AK
 a. Run 3/8-24 tap through welded lugs.
 b. Inspect hoop for conformity to drawing.
 c. Tag complete and inspected hoop(s) and place into stock.

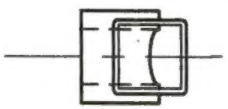
2014-66

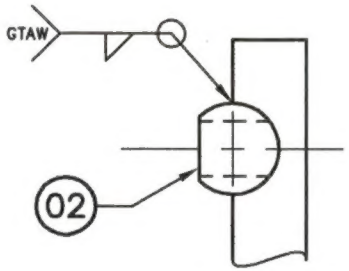
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	CHANGE JOGGLE	BJC	SEPT 13/11



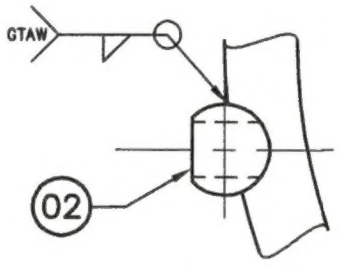
(01) END HOOP







DETAIL A
SCALE 1 : 1



DETAIL B
SCALE 1 : 1

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
	LIST OF MATERIALS					
01	69821-01	01	END HOOP	4130 STEEL COND. N	MIL-T-6736	1/2 x 0.035 SQR. TUBE
2	69823-02	02	LUG			

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. DRILL 3/32 VENT HOLE IN BOTTOM OF HOOP FOR VENTING OF WELD GASES
3. WELDING OF STAINLESS STEEL LUGS TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.

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APPROVALS		DATE
DRAWN:	JEFF CLARKE	10 APR 2006
CHECKED:	E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:

DECIMALS		ANGLES
X.XXX	±0.010	±1/2°
X.XX	±0.03	
X.X	±0.1	

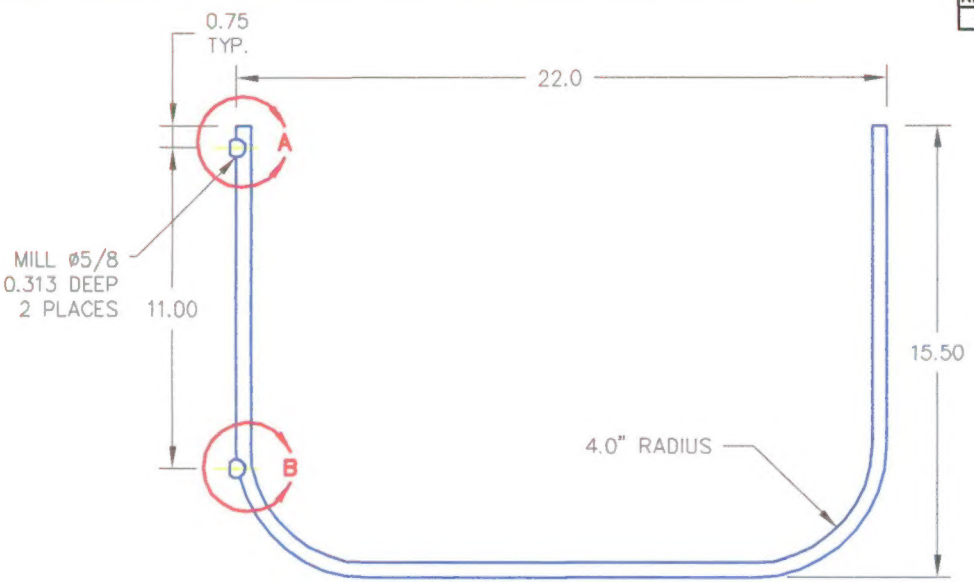
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2013 – 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7
tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net

BELL 206L, 407
QUICK RELEASE CARGO BASKET
BASKET COMPONENTS – AFT HOOP

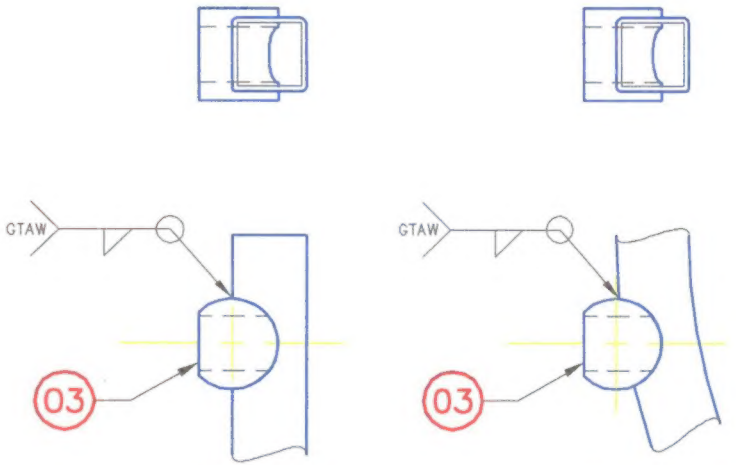
SCALE	DWG. SIZE	DWG. NO.	REV.
1 : 5	LGL	69822	1
SHEET 1 OF 1			

2014-66

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	REMOVED LUG (ITEM 2), BOTH LUGS NOW ITEM 3	BJC	09/11/2006



01 END HOOP



DETAIL A
SCALE 1 : 1

DETAIL B
SCALE 1 : 1

QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
			LIST OF MATERIALS			
2	03	69823-02	LUG	304 STAINLESS STEEL	ASTM A476	5/8 DIA ROD
	02	--	--			
	01	69821-01	END HOOP	4130 STEEL COND. N	MIL-T-6736	1/2 x 0.035 SQR. TUBE

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. DRILL 3/32 VENT HOLE IN BOTTOM OF HOOP FOR VENTING OF WELD GASES
3. WELDING OF STAINLESS STEEL LUGS TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO AMS 5680 (347 STAINLESS STEEL) OR EQUIVALENT.

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TOLERANCES ON:

DECIMALS		ANGLES
X.XXX	±0.010	±1/2°
X.XX	±0.03	
X.X	±0.1	

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BELL 206L, 407
QUICK RELEASE CARGO BASKET
BASKET COMPONENTS - END HOOP

SCALE	DWG. SIZE	DWG. NO.	REV.
1 : 5	LGL	69821	1
SHEET 1 OF 1			